

Title (en)
Toothbrush with enhanced cleaning effects

Title (de)
Zahnbürste mit verbesserter Reinigungswirkung

Title (fr)
Brosse à dents dotée d'effets de nettoyage améliorés

Publication
EP 2000049 A3 20120502 (EN)

Application
EP 08161371 A 20041029

Priority
• EP 04796862 A 20041029
• US 69721303 A 20031030
• US 76836304 A 20040130

Abstract (en)
[origin: EP2000047A2] A toothbrush is provided for cleaning and/or massaging of teeth and gums having a mechanical vibratory element and a head having cleaning/treating elements on a plurality of different types of cleaning areas which provide for an enhanced cleaning, scrubbing and massaging effect. The cleaning/treating elements have different physical characteristics so that in addition to providing a varied cleaning/treating effect from the cleaning/treating elements themselves there is enhanced treatment as a result of the movement of the cleaning/treating elements imparted by the mechanical vibratory device.

IPC 8 full level
A46B 15/00 (2006.01); **A46B 9/04** (2006.01); **A46B 13/02** (2006.01); **A61C 17/22** (2006.01)

CPC (source: EP KR US)
A46B 3/20 (2013.01 - EP US); **A46B 3/22** (2013.01 - EP US); **A46B 5/0029** (2013.01 - EP US); **A46B 7/06** (2013.01 - EP US);
A46B 9/04 (2013.01 - EP US); **A46B 13/00** (2013.01 - KR); **A46B 13/02** (2013.01 - KR); **A46B 15/00** (2013.01 - KR);
A46B 15/0002 (2013.01 - EP US); **A46B 15/0012** (2013.01 - EP US); **A46B 15/0032** (2013.01 - EP US); **A61C 17/222** (2013.01 - EP US);
A61C 17/3463 (2013.01 - EP US); **A61C 17/3481** (2013.01 - EP US); **A46B 7/08** (2013.01 - EP US); **A46B 2200/1066** (2013.01 - EP US);
A61C 17/349 (2013.01 - EP US); **B29C 45/1671** (2013.01 - EP US); **B29L 2031/425** (2013.01 - EP US)

Citation (search report)
• [X] US 2003033680 A1 20030220 - DAVIES RICHARD HUW [IT], et al
• [X] US 2003196283 A1 20031023 - ELIAV EYAL [US], et al
• [I] US 2003077107 A1 20030424 - KUO YOUTI [US]
• [X] US 2206726 A 19400702 - LASATER ROBERT L
• [XI] US 2003159224 A1 20030828 - FISCHER FRANZ [CH], et al
• [XP] WO 2004039208 A1 20040513 - COLGATE PALMOLIVE CO [US], et al
• [A] WO 0074522 A1 20001214 - UNILEVER NV [NL], et al
• [A] US 2002124333 A1 20020912 - HAFLIGER PETER [CH], et al

Designated contracting state (EPC)
AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HU IE IT LI LU MC NL PL PT RO SE SI SK TR

DOCDB simple family (publication)
EP 2000047 A2 20081210; EP 2000047 A3 20120502; EP 2000047 B1 20171206; AR 046357 A1 20051207; AT E404085 T1 20080815;
AU 2004285559 A1 20050512; AU 2004285559 B2 20100923; AU 2010257383 A1 20110120; AU 2010257383 B2 20121108;
BR PI0416002 A 20070102; CA 2543619 A1 20050512; CA 2543619 C 20140708; CA 2848478 A1 20050512; CA 2848478 C 20161129;
CN 100556335 C 20091104; CN 101669722 A 20100317; CN 1897846 A 20070117; CO 5680460 A2 20060929; DE 602004015825 D1 20080925;
EP 1681958 A1 20060726; EP 1681958 B1 20080813; EP 2000048 A2 20081210; EP 2000048 A3 20111019; EP 2000049 A2 20081210;
EP 2000049 A3 20120502; EP 2000049 B1 20170510; EP 2000050 A2 20081210; EP 2000050 A3 20120502; EP 2000051 A2 20081210;
EP 2000051 A3 20120502; EP 2000051 B1 20160928; EP 2000052 A2 20081210; EP 2000052 A3 20120425; ES 2310760 T3 20090116;
HK 1093404 A1 20070302; KR 101263949 B1 20130513; KR 101279742 B1 20130627; KR 20060097022 A 20060913;
KR 20120057620 A 20120605; KR 20120099305 A 20120907; MX PA06004725 A 20060705; MY 158220 A 20160915;
RU 2006118698 A 20071227; RU 2009112452 A 20101010; RU 2364306 C2 20090820; RU 2485875 C2 20130627; TW 200529779 A 20050916;
TW I344345 B 20110701; US 2005091767 A1 20050505; US 2005091769 A1 20050505; US 7703163 B2 20100427; US 7757326 B2 20100720;
WO 2005041713 A1 20050512

DOCDB simple family (application)
EP 08161370 A 20041029; AR P040103999 A 20041029; AT 04796862 T 20041029; AU 2004285559 A 20041029;
AU 2010257383 A 20101222; BR PI0416002 A 20041029; CA 2543619 A 20041029; CA 2848478 A 20041029; CN 200480039061 A 20041029;
CN 200910175934 A 20041029; CO 06047135 A 20060517; DE 602004015825 T 20041029; EP 04796862 A 20041029;
EP 08161368 A 20041029; EP 08161371 A 20041029; EP 08161372 A 20041029; EP 08161373 A 20041029; EP 08161374 A 20041029;
ES 04796862 T 20041029; HK 07100558 A 20070116; KR 20067008147 A 20060427; KR 20127005013 A 20041029;
KR 20127021220 A 20041029; MX PA06004725 A 20041029; MY PI20044465 A 20041029; RU 2006118698 A 20041029;
RU 2009112452 A 20041029; TW 93133016 A 20041029; US 2004036230 W 20041029; US 69721303 A 20031030; US 76836304 A 20040130